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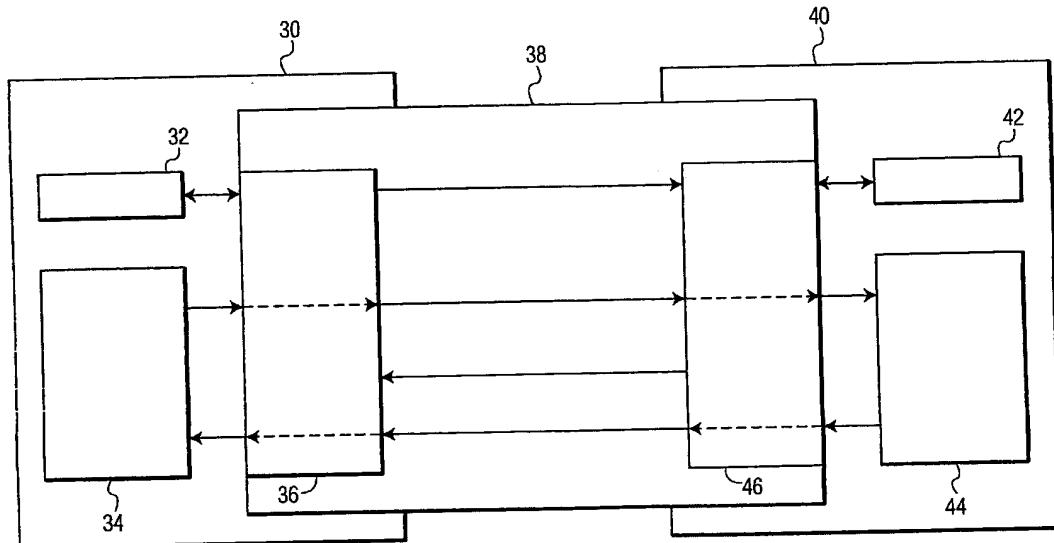
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(54) Title: METHOD AND APPARATUS FOR MASTER/SLAVE DIRECT MEMORY ACCESS HARDWARE AND SOFTWARE CONTROL



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(57) **Abstract:** Systems and methods according to the present invention describe a robust DMA architecture including registers that flexibly support higher level hardware/software servicing needs during a DMA transfer. Among other things, such registers include mailbox registers and scratch pad registers which provide DMA architectures and methods according to the present invention with the capability to provide multiple interrupt channels and overflow data transfer capabilities that permit disparate hardware/software applications to reuse these DMA architectures with changes in their programming rather than changes in their architecture. Round robin DMA transfers using alternating memory locations are also described.



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